

Remarks

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and the following remarks. Claims 1-22 are pending in the application. Claims 1-22 are rejected. No claims have been allowed. Claims 1, 8, and 16 are independent. Claims 16-22 have been amended.

Cited Art

The Action cites U.S. Patent No. 6,104,751 (“Altieri”) and U.S. Patent No. 5,657,087 (“Jeong”).

Rejections under 35 U.S.C. § 101

The Action rejects claims 16-22 under 35 U.S.C. § 101 as allegedly directed toward non-statutory subject matter. Applicants respectfully traverse this rejection.

The Action indicates that the preamble language was considered to read on a program memorized by a person. Applicants respectfully disagree, and submit that the language clearly defines a product within the scope of statutory subject matter defined by § 101. Nevertheless, in interest of expediting issuance of the claims, the preamble language suggested by the Office is adopted in the foregoing amendment. Accordingly, the rejection should be withdrawn.

Patentability of claims Under § 103(a)

The Action rejects claims 1-22 under 35 U.S.C § 103(a) as unpatentable over Altieri in view of Jeong. To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. [See, MPEP § 2142.] However, the cited art fails to teach or suggest all the claim limitations.

Claims 1-7

Claim 1 recites, “analyzing motion vectors of macroblocks for a frame of a video sequence to determine whether global motion of the video at the frame in the video sequence is characteristic of panning or zooming.” This limitation is not taught or suggested by the cited art.

The Office recognizes that “Artieri does not specifically disclose the term ‘global motion estimation,” and cites to Jeong as teaching “the application of global motion estimation.”

Jeong describes a motion compensation encoding method which estimates an amount of motion with respect to a video block to be motion-compensation-encoded. Jeong describes generating a global motion vector representing displacement between the frames by altering a motion estimation range into a whole frame. Such description of generating a global motion vector representing the amount of displacement between frames, however, does not teach or suggest motion analysis to detect panning or zooming of a frame, as recited in claim 1.

The art therefore fails to teach or suggest this limitation of claim 1. For at least this reason, claim 1 and claims 2-7 which each depend from claim 1 should be allowable over this art.

Claims 8-10, 12-18 and 20-22

Independent claim 8 recites, “wherein the syntax scheme identifies a differently quantized region to be from among a list of coding possibilities that comprises a single boundary edge and a pair of adjacent boundary edges of the frame.” Independent claim 16 recites, “wherein the syntax scheme codes the region from a choice of a single boundary edge and a pair of adjacent boundary edges of the frame.” These limitations are not taught or suggested by the cited art.

Artieri describes a decoder of “pictures encoded in accordance with an MPEG standard.” Artieri, at column 1, lines 12-15. Artieri describes that a macro-block header can include a quantizer scale. Artieri, at column 2, lines 46-51. Artieri further indicates that the quantizer scale is provided to an inverse quantizer circuit in the decoder. Artieri, at column 10, lines 27-28. However, this syntax scheme for the MPEG standard as described in Artieri simply codes a quantizer scale in the macroblock header. This fails to teach or suggest a syntax scheme that codes a region for different quantization in a picture as a choice from a single boundary edge, and a pair of adjacent boundary edges of the frame, as recited in this limitation.

Jeong is cited merely for its description of a motion compensation encoding where an amount of motion or displacement is represented with a global motion vector. Jeong also lacks any teaching or suggestion of the recited syntax scheme that codes a region for different quantization as a choice from a single boundary edge and a pair of adjacent edges.

For at least this reason, claims 8 and 16 and their dependents (claims 9-10, 12-15, 17-18 and 20-22) should be allowable over this art.

New Claim

New claim 23 is drawn to a method of decoding. It is similar in scope of subject matter to claim 8 (drawn to the video decoder), and related as apparatus and its corresponding method of operation. Claim 23 is supported in the specification of the application at page 16, line 4 through page 23, line 24. Accordingly, no new matter is added.

Interview Request

If any issues remain, the Examiner is formally requested to contact the undersigned attorney prior to issuance of the next Office Action in order to arrange a telephonic interview. It is believed that a brief discussion of the merits of the present application may expedite prosecution. Applicants submit the foregoing formal Amendment so that the Examiner may fully evaluate Applicants' position, thereby enabling the interview to be more focused.

This request is being submitted under MPEP § 713.01, which indicates that an interview may be arranged in advance by a written request.

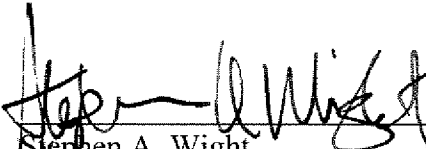
Conclusion

The claims in their present form should be allowable. Such action is respectfully requested.

Respectfully submitted,

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